

### **REMARKS**

Applicants have now had an opportunity to carefully consider the Examiner's comments set forth in the Office Action of July 2, 2004.

Reconsideration of the Application is requested.

### **The Office Action**

Claims 1 – 30 remain in this application. Claim 31 has been canceled. Claims 1 – 4, 8, 12 – 14, 18 – 19, 23 – 26 and 31 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Banker et al. (U.S. Patent No. 6,275,600 B1). Claims 5 – 7, 9 – 11, 15 – 17, 20, 22 and 27 – 30 stand rejected under U.S.C. 35 § 103(a) as being unpatentable over Banker et al. in view of Okuda et al. (U.S. Patent No. 5,625,703).

### **Brief Description of Claim Amendments**

Claims 1, 8, 12, 18 and 21 have been amended to further indicate and distinctly claim the subject matter of the present application from the cited references.

Claims 5 and 15 have been amended to reflect the amended claim language of the claims they depend from.

Claim 31 has been canceled without prejudice or disclaimer of the subject matter contained therein. These amendments and comments are reflected in the present paper.

### **Brief Summary of Telephone Conference with Examiner**

The Applicants acknowledge and appreciate the time and courtesy Examiner Tom Y. Lu extended in the phone call of November 17, 2004.

Proposed claim amendments, comments and arguments were sent to the Examiner via electronic mail by the applicants. It was noted to the Applicants by the Examiner during the telephone call that the proposed amendments, comments and arguments overcome the primary reference cited against the claims of the present application. These amendments and comments are reflected in the present paper.

### **Comments and Arguments**

The rejection of independent claim 1 is hereby traversed. The office

action asserts that Banker et al. anticipates the concept of claim 1 of the present application. The Applicants respectfully submit that Banker et al. neither teaches nor fairly suggests the claimed subject matter of the present application. Specifically, Banker et al. fails to disclose a closed feedback loop method for detecting defects of a printed image. The cited reference does not disclose scanning a printed image of an original image that is printed and feeding it back to the processor to be compared against the original image on a pixel by pixel basis in order to determine the quality of the printed image. Also, Banker et al. neither teaches nor fairly suggests comparing the scanned printed image to the original image. Rather, Banker et al. teaches away from the closed feedback loop method of the present application. Banker et al. discloses an open loop method whereby a test pattern image is introduced to the printing system and is printed and scanned to obtain digital pattern data. The digital pattern image includes specific target objects designed to reveal specific printed image characteristics. The digital pattern data is analyzed in a separate print image analyzer which generates measurements and quality ratings of the printed test pattern image based on the specific target objects. Nowhere in Banker et al. is the concept of claim 1 of the present application taught or fairly suggested, whereby an original image to be printed is printed and scanned and then the scanned image compared on a pixel by pixel basis to the original image to detect printed image defects. In other words, wherein the method of the present application scans a print of the original image to be printed and compares the scanned print image to the original image on a pixel by pixel basis, the method of Banker et al. uses a test pattern image with specific target objects that is printed and scanned. The scanned test pattern image is then sent to a print image analyzer wherein the print image analyzer generates quantitative ratings from measurements of the image characteristics based on the specific target objects. The cited reference does not disclose using the actual images to be printed as comparison data for determining print defects nor does Banker et al. disclose comparing the test image data to the original image data on a pixel by pixel basis.

The Applicants respectfully submit that independent claim 1 distinguishes over the cited reference and is in condition for allowance for at least the reasons stated above. Also, claims 2 – 7 which depend from claim 1 distinguish over the

cited reference and are in condition for allowance.

The rejection of independent claim 8 is hereby traversed. The Examiner cites column 6, line 15 of Banker et al. as disclosing the subject matter of claim 8 of the present application and more specifically as disclosing the half-tone image and half-tone values of the present application. The Applicants respectfully disagree with the Examiner's view. Banker et al. neither teaches nor fairly suggests the method of claim 8 of the present application. Rather, the cited reference discloses a print image analyzer that measures variations in print density of a target object in a test pattern. In the test pattern are a vertical and a horizontal solid black target object with solid white target object to the left and above the solid black target objects (Fig. 2). The print image analyzer computes density values of these target objects by measuring/counting the number of voids in the solid black target object and measuring/counting the number of speckles the solid white target object. Nowhere in Banker et al. is it disclosed that a half-tone image is generated, printed, scanned and the scanned half-tone image is compared to the original half-tone image.

For at least the reasons cited here and the reasons cited for the allowance of claims 1 – 7 above, independent claim 8 and claims 9 – 11 which depend therefrom distinguish over the cited reference and are in condition for allowance.

As to independent claim 12, the office action asserts that Banker et al. discloses the concept of "pixel locations of the second image data being assumed the same as the pixel locations of the first image data" and then states "upon completion of the landmark registration, the skewing or margin deviations have been corrected". The concept of completing landmark registration teaches away from the method of claim 12. Landmark registration corrects skew by measuring pixel location in reference to landmarks added to the image thereby not assuming that the pixel locations between the two images are already the same.

The Applicants respectfully submit that independent claim 12 and claims 13 – 17 which depend therefrom distinguish over the cited art and are in condition for allowance for at least the reasons stated here and in the reasons for allowance of claims 1 – 7.

The rejection of independent claim 18 is hereby traversed. Banker et al. fails to fully disclose the method of claim 18 of the present application.

Specifically, Banker et al. does not disclose the step of analyzing the second image data based on the first image data. The print image analyzer of the cited reference performs tests on digital pattern data of a printed test pattern to evaluate print image characteristics. The print image analyzer of Banker et al. uses a template stored in memory to determine skew and does not determine skew by comparing the second image data to the first image data as in the method of the present application.

Therefore, independent claim 18 is distinguished and is in condition for allowance. Claims 19 – 20 which depend from claim 18 also distinguish over the cited reference and are in condition for allowance.

Regarding the rejection of independent claim 21, the Applicants respectfully submit that for as least the reasons stated above for the allowances of claims 1 – 20, claim 21 distinguishes over the cited reference and is in condition for allowance. Also, claims 22 – 30 which depend therefrom are distinguished and in condition for allowance.

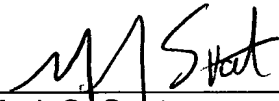
**CONCLUSION**

For the reasons detailed above, it is submitted all claims remaining in the application (Claims 1 – 30) are now in condition for allowance. The foregoing comments do not require unnecessary additional search or examination.

In the event the Examiner considers personal contact advantageous to the disposition of this case, he/she is hereby authorized to call Mark S. Svat, at Telephone Number (216) 861-5582.

Respectfully submitted,

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Date

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